NOAA/DOE Climate Change Detection and Attribution Project

FY 2007 Information Sheet

Proposals are solicited on all aspects of climate change detection and attribution. Detection is the process of demonstrating that an observed change in climate is unusual in a statistical sense, i.e., that the observed change is large relative to estimates of natural climate variability. We broaden this standard definition to include those proposals that not only document changes in climate, but also focus on producing a data set of adequate quality so as to be able to quantitatively identify interannual, decadal, and longer-term variations and changes.

Detection proposals are encouraged on documenting and assessing variations and changes, especially of weather and climate extremes. Successful proposals will address data set errors in the context of defining significant changes.

Attribution is the process of establishing cause and effect. Often these detection and attribution activities will not be part of the same proposal, e.g., attribution studies often rely on data bases and modeling simulations that have already been produced, but proposals will be entertained that combine both of these activities as well as those that focus solely on detection or attribution.

Attribution proposals will be considered that address part or all of the issues associated with identifying natural climate variability, and making the linkage between specific forcings and observed climate variations and changes, especially as related to extreme events. Critical components of these proposals will often include the use of climate model simulations, statistical techniques, and long-term climate data, including paleoclimate data.

In FY07, proposals will be viewed most favorably if they include one or more of the following foci:
(1) investigations of possible changes in the characteristics of weather/climate extremes for one or more variables (e.g., tropical and extratropical storms, heavy precipitation events, droughts, heat waves, severe freezes, cold spells, etc); (2) detection studies at continental and sub-continental scales, as appropriate to the variable(s) being considered, the quality of the historical record, and the spatial/temporal resolvability; and (3) multiple-model approaches to further validate detection results.

TECHNICAL DETAILS
Proposals will be considered for up to three years in duration, but one and two year proposals are encouraged. Funds for each subsequent year of multi-year proposals will be subject to a review of annual progress reports.

Those proposing should ensure that any data sets produced have a dedicated archive identified for the data and indicate in the proposal the final disposition of the data.